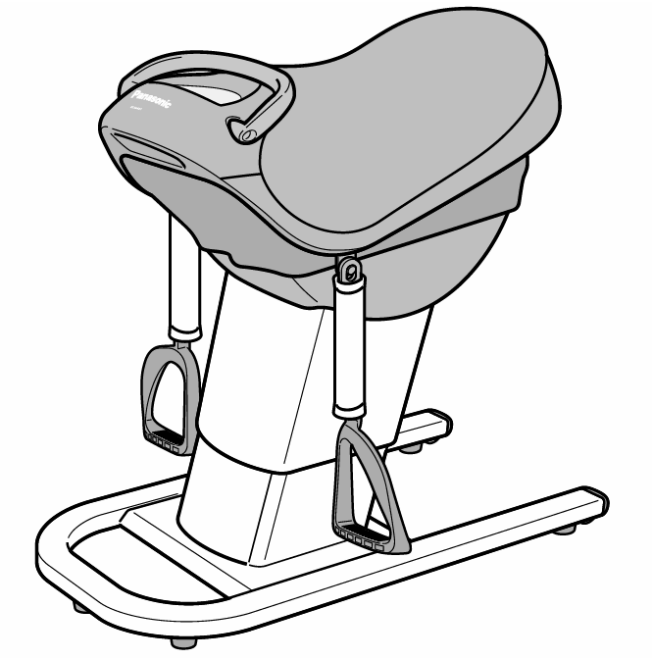
ORDER NO. HPD0512U64C1

Service Manual

Core Trainer Exercise Equipment

EU6441-U1



⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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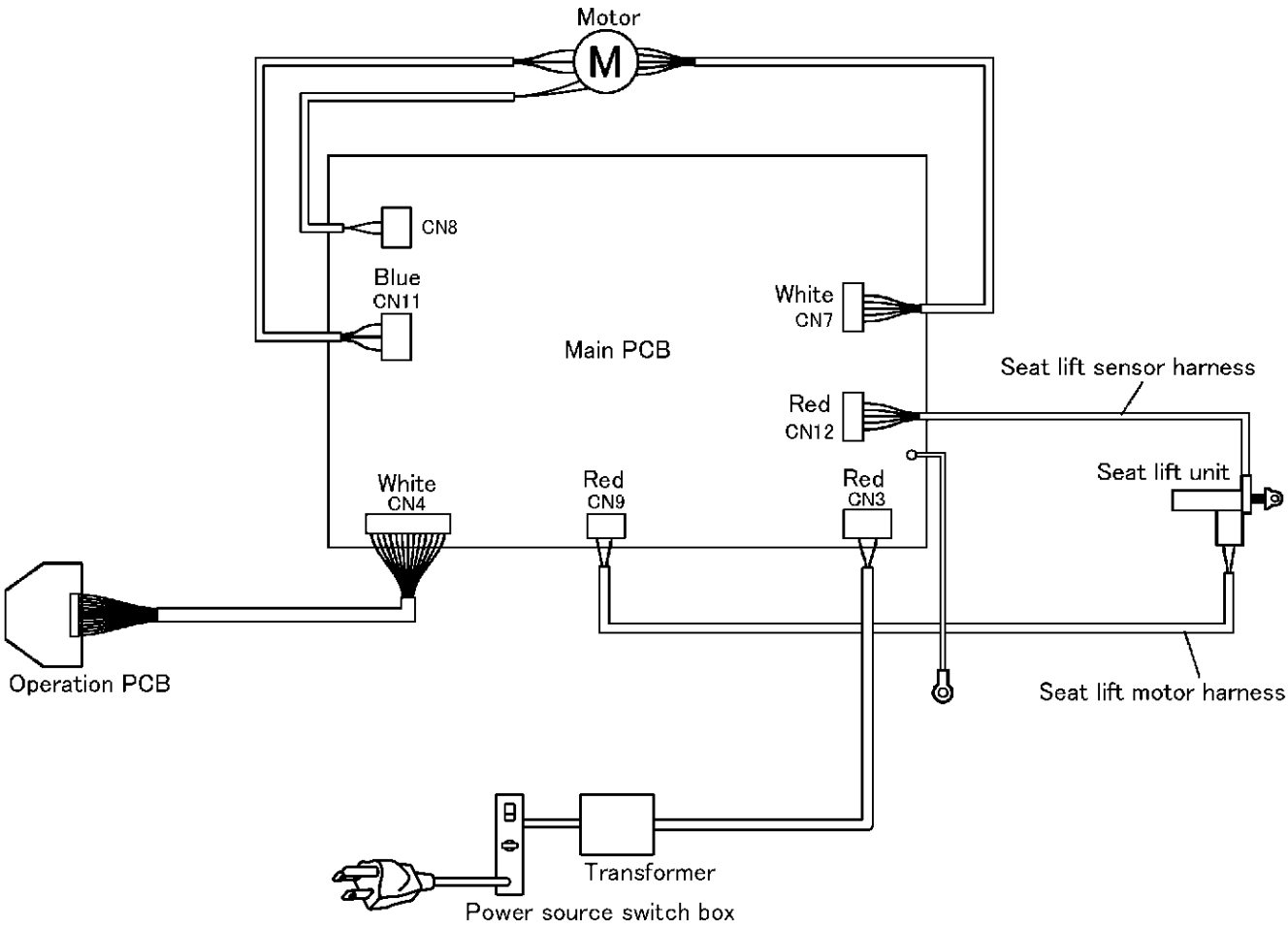
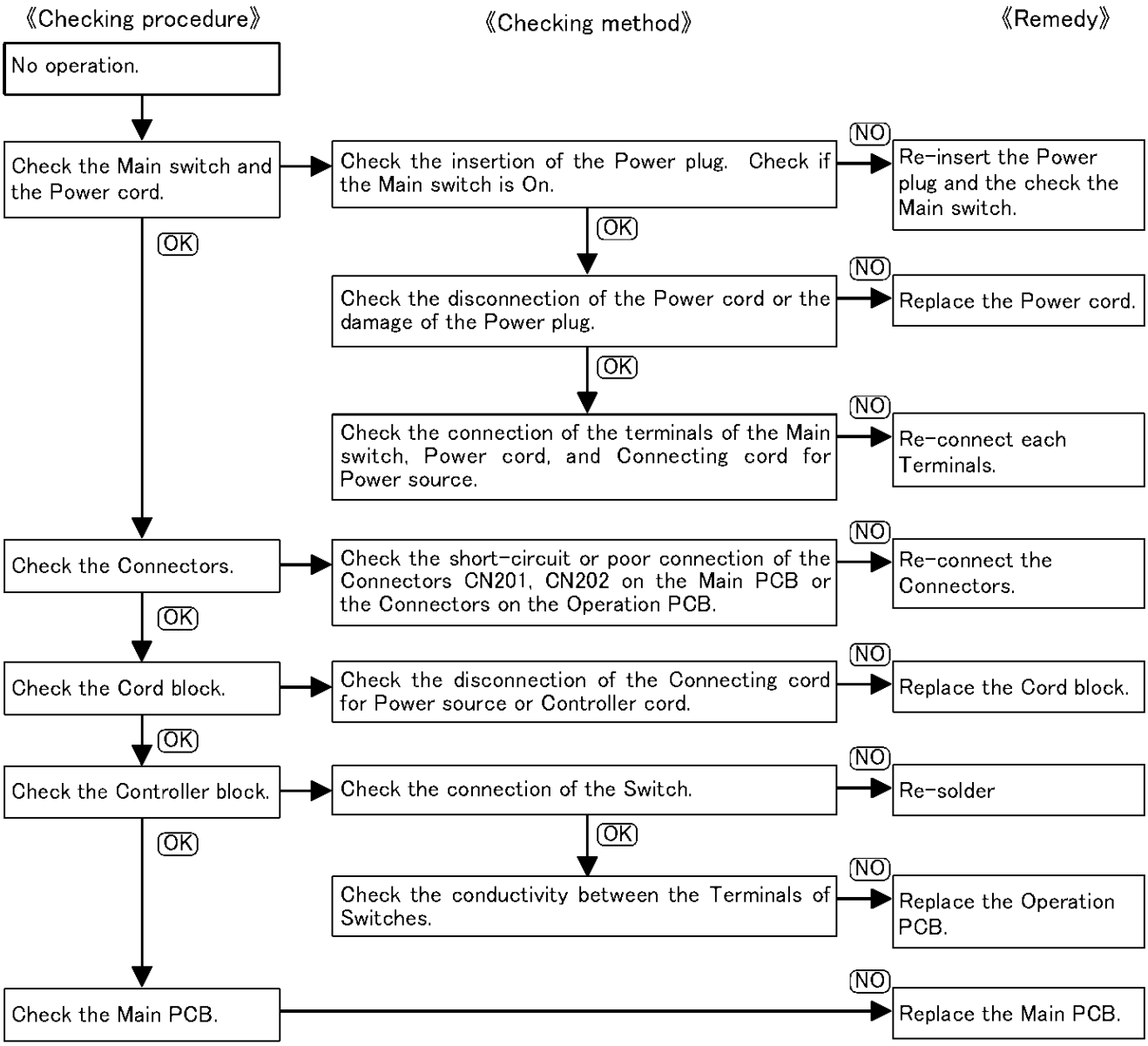
1 DIAGRAM OF MAIN PCB



2 CHECKING


《Checking procedure》
《Checking method》
《Remedy》
No operation.
Check the Main switch and the Power cord.
Check the insertion of the Power plug. Check if the Main switch is On.
NO
Re-insert the Power plug and the check the Main switch.
OK
Check the disconnection of the Power cord or the damage of the Power plug.
NO
Replace the Power cord.
OK
Check the connection of the terminals of the Main switch, Power cord, and Connecting cord for Power source.
NO
Re-connect each Terminals.
OK
Check the Connectors.
Check the short-circuit or poor connection of the Connectors CN201, CN202 on the Main PCB or the Connectors on the Operation PCB.
NO
Re-connect the Connectors.
OK
Check the Cord block.
Check the disconnection of the Connecting cord for Power source or Controller cord.
NO
Replace the Cord block.
OK
Check the Controller block.
Check the connection of the Switch.
NO
Re-solder
OK
Check the conductivity between the Terminals of Switches.
NO
Replace the Operation PCB.
OK
Check the Main PCB.
NO
Replace the Main PCB.

《Checking procedure》 《Checking method》 《Remedy》

All the LEDs on the Controller do not light and not work when the buttons of Programmed course or Manual course are pushed after the On/off switch is pushed.

Check the Connectors.
→ Check the short-circuit or poor connection of the Connector CN8 of the Main PCB.
→ (NO) Re-connect.

(OK)

Check the Cord block.
→ Check the disconnection of the Motor-Power source harness, Motor-Sensor harness.
→ (NO) Replace the Driving unit.

(OK)

Check the Main PCB.
→ (NO) Replace the Main PCB.

(OK)

Check the Motor.
→ Check the resistance values between Coils. If there is more than ±10% difference from the resistance values, it is judged 'malfunction'.

V-U	U-W	V-W
Red-Blue	Blue-Yellow	Red-Yellow
6.3Ω	6.3Ω	6.3Ω

→ (NO) Replace the Driving unit.

The remaining time LED on the Controller do not light and not work when the buttons of Programmed course or Manual course are pushed after the On/off switch is pushed.

Check the Connectors.
→ Check the short-circuit or poor connection of the Connector CN9, CN12 of the Main PCB.
→ (NO) Re-connect.

(OK)

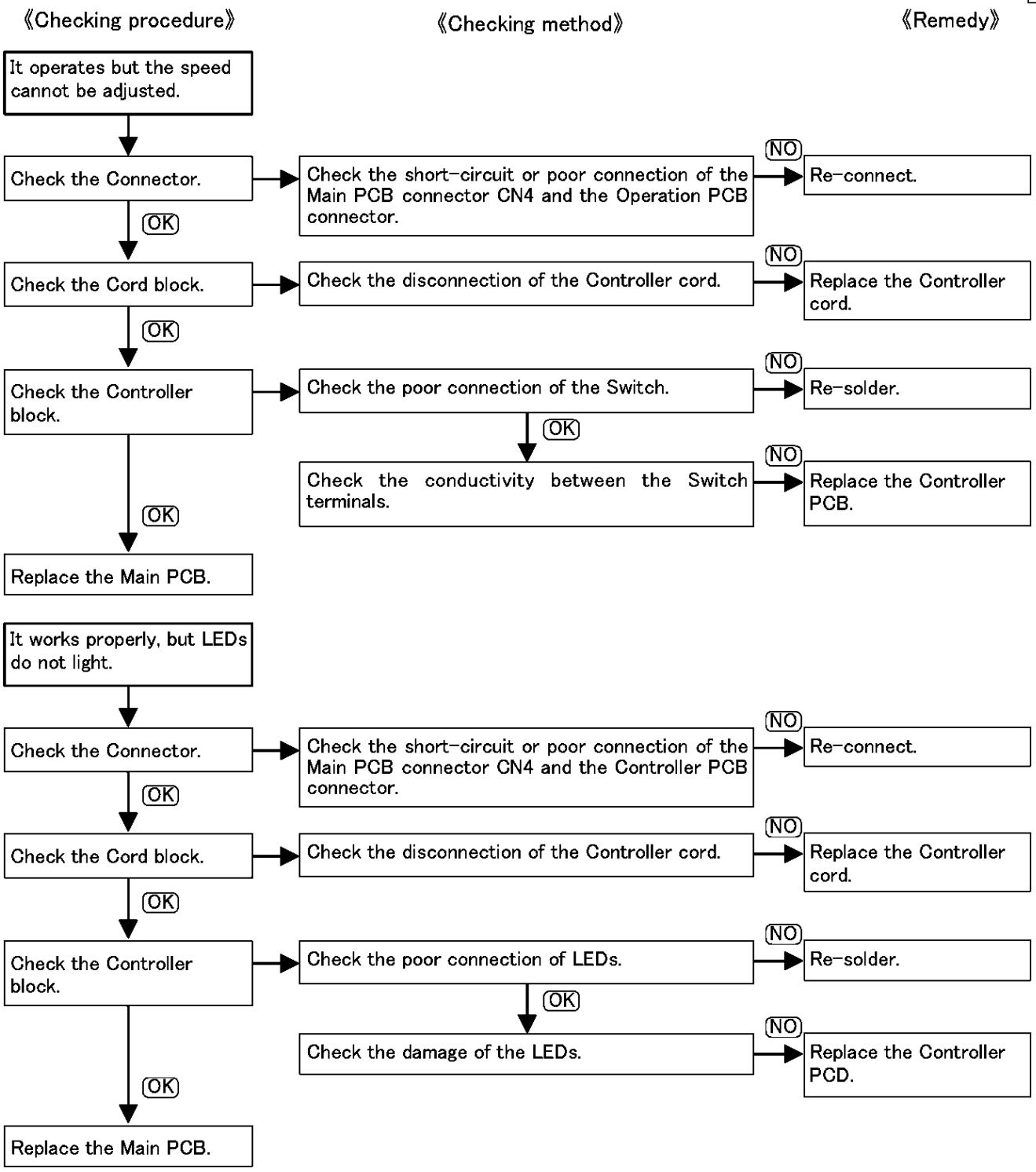
Check the Cord block.
→ Check the disconnection of the Seat lift motor-Harness.
→ (NO) Replace the Seat lift.
→ Check the disconnection of the Seat lift sensor-Harness.
→ (NO) Check the Seat lift sensor.

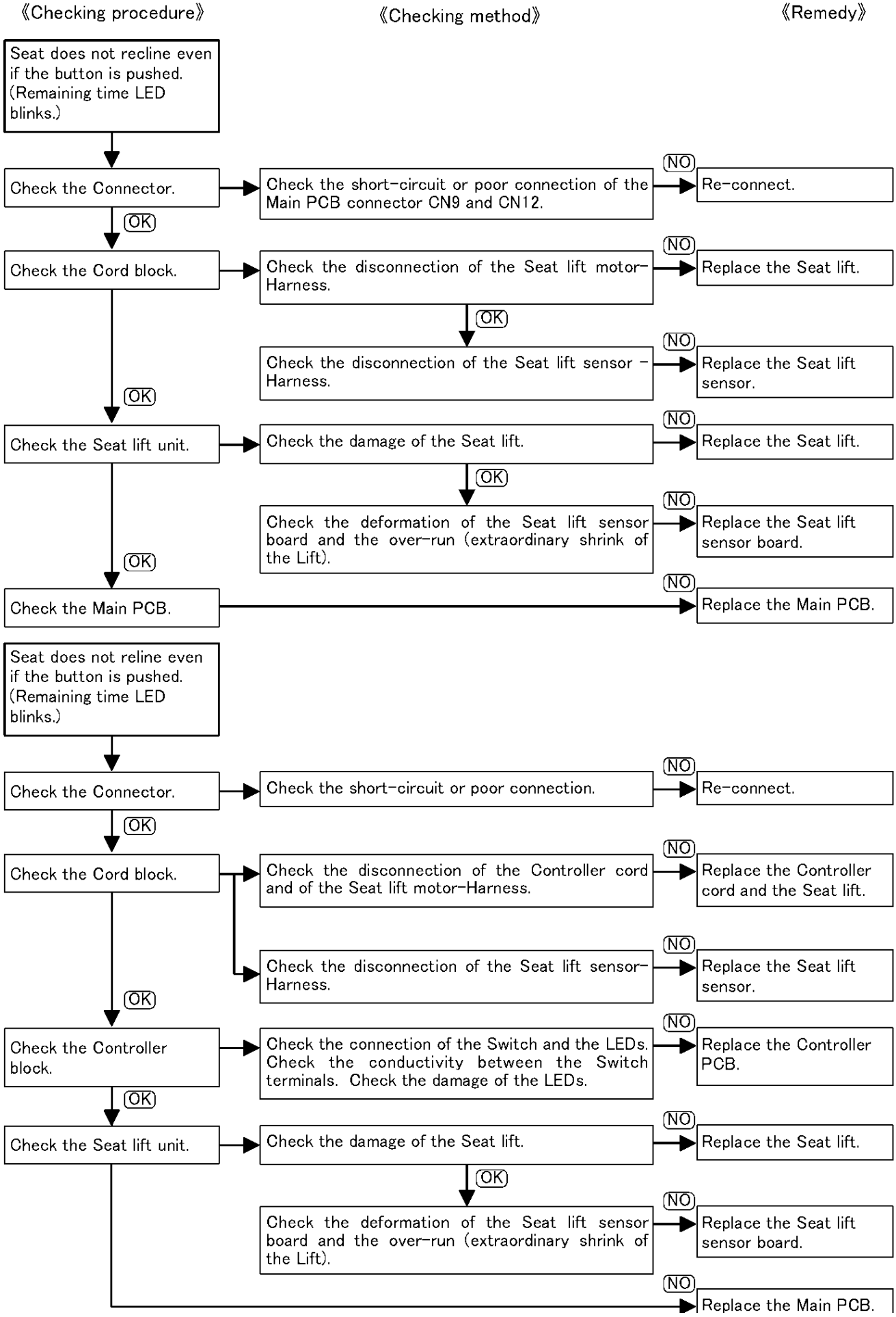
(OK)

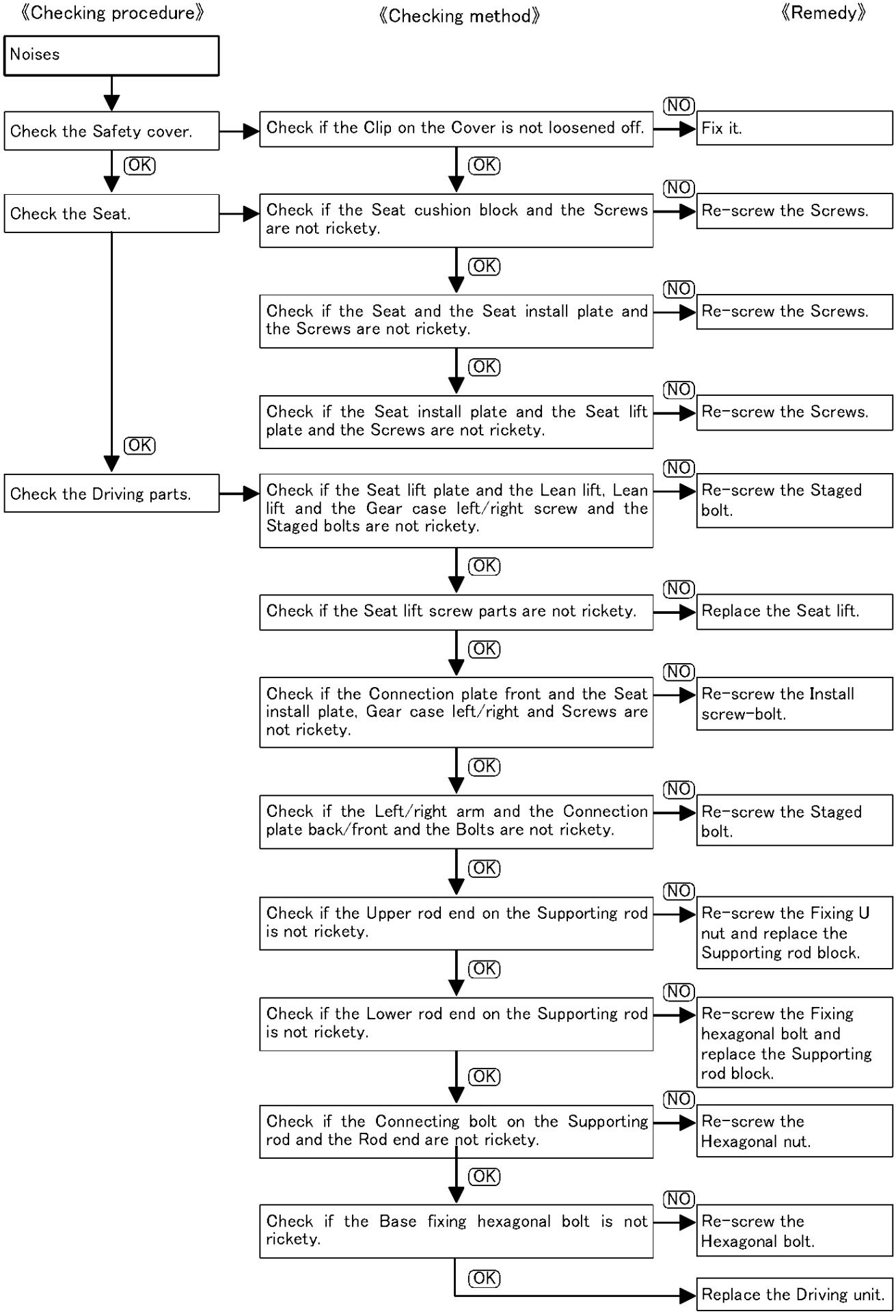
Check the Seat lift unit.
→ Check the damage of the Seat lift.
→ (NO) Replace the Seat lift.
→ Check the deformation of the Seat lift sensor board and the over-run (extraordinary shrink of the Lift).
→ (NO) Replace the Seat lift sensor board.

(OK)

Check the Main PCB.
→ (NO) Replace the Main PCB.


《Checking procedure》
《Checking method》
《Remedy》
It operates but the speed cannot be adjusted.
Check the Connector.
Check the short-circuit or poor connection of the Main PCB connector CN4 and the Operation PCB connector.
NO
Re-connect.
OK
Check the Cord block.
Check the disconnection of the Controller cord.
NO
Replace the Controller cord.
OK
Check the Controller block.
Check the poor connection of the Switch.
NO
Re-solder.
OK
Check the conductivity between the Switch terminals.
NO
Replace the Controller PCB.
OK
Replace the Main PCB.
It works properly, but LEDs do not light.
Check the Connector.
Check the short-circuit or poor connection of the Main PCB connector CN4 and the Controller PCB connector.
NO
Re-connect.
OK
Check the Cord block.
Check the disconnection of the Controller cord.
NO
Replace the Controller cord.
OK
Check the Controller block.
Check the poor connection of LEDs.
NO
Re-solder.
OK
Check the damage of the LEDs.
NO
Replace the Controller PCD.
OK
Replace the Main PCB.

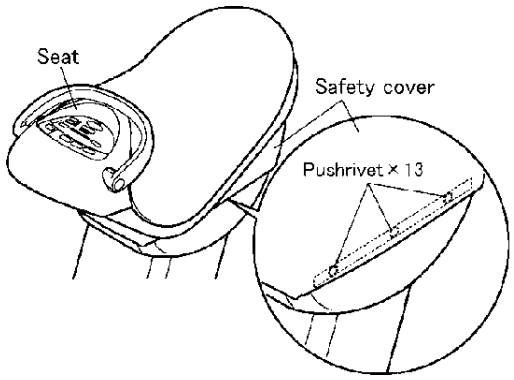

《Checking procedure》
《Checking method》
《Remedy》
Seat does not recline even if the button is pushed. (Remaining time LED blinks.)
Check the Connector.
Check the short-circuit or poor connection of the Main PCB connector CN9 and CN12.
NO
Re-connect.
OK
Check the Cord block.
Check the disconnection of the Seat lift motor-Harness.
NO
Replace the Seat lift.
OK
Check the disconnection of the Seat lift sensor -Harness.
NO
Replace the Seat lift sensor.
OK
Check the Seat lift unit.
Check the damage of the Seat lift.
NO
Replace the Seat lift.
OK
Check the deformation of the Seat lift sensor board and the over-run (extraordinary shrink of the Lift).
NO
Replace the Seat lift sensor board.
OK
Check the Main PCB.
NO
Replace the Main PCB.
Seat does not reline even if the button is pushed. (Remaining time LED blinks.)
Check the Connector.
Check the short-circuit or poor connection.
NO
Re-connect.
OK
Check the Cord block.
Check the disconnection of the Controller cord and of the Seat lift motor-Harness.
NO
Replace the Controller cord and the Seat lift.
Check the disconnection of the Seat lift sensor-Harness.
NO
Replace the Seat lift sensor.
OK
Check the Controller block.
Check the connection of the Switch and the LEDs. Check the conductivity between the Switch terminals. Check the damage of the LEDs.
NO
Replace the Controller PCB.
OK
Check the Seat lift unit.
Check the damage of the Seat lift.
NO
Replace the Seat lift.
OK
Check the deformation of the Seat lift sensor board and the over-run (extraordinary shrink of the Lift).
NO
Replace the Seat lift sensor board.
NO
Replace the Main PCB.


《Checking procedure》
《Checking method》
《Remedy》
Noises
Check the Safety cover.
Check if the Clip on the Cover is not loosened off.
NO
Fix it.
OK
Check the Seat.
Check if the Seat cushion block and the Screws are not rickety.
NO
Re-screw the Screws.
OK
Check if the Seat and the Seat install plate and the Screws are not rickety.
NO
Re-screw the Screws.
OK
Check if the Seat install plate and the Seat lift plate and the Screws are not rickety.
NO
Re-screw the Screws.
OK
Check the Driving parts.
Check if the Seat lift plate and the Lean lift, Lean lift and the Gear case left/right screw and the Staged bolts are not rickety.
NO
Re-screw the Staged bolt.
OK
Check if the Seat lift screw parts are not rickety.
NO
Replace the Seat lift.
OK
Check if the Connection plate front and the Seat install plate, Gear case left/right and Screws are not rickety.
NO
Re-screw the Install screw-bolt.
OK
Check if the Left/right arm and the Connection plate back/front and the Bolts are not rickety.
NO
Re-screw the Staged bolt.
OK
Check if the Upper rod end on the Supporting rod is not rickety.
NO
Re-screw the Fixing U nut and replace the Supporting rod block.
OK
Check if the Lower rod end on the Supporting rod is not rickety.
NO
Re-screw the Fixing hexagonal bolt and replace the Supporting rod block.
OK
Check if the Connecting bolt on the Supporting rod and the Rod end are not rickety.
NO
Re-screw the Hexagonal nut.
OK
Check if the Base fixing hexagonal bolt is not rickety.
NO
Re-screw the Hexagonal bolt.
OK
Replace the Driving unit.

3 DISASSEMBLY

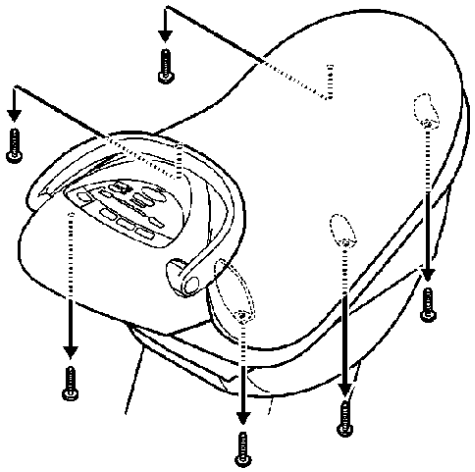
1. Remove the Safety cover on the Seat.

   When you install the Safety cover, insert the Pushrivets in the holes with its head fully pushed so that they cannot fall. Then, push the tips of the Pushrivets near the holes of the housings to make them loose and insert the Pushrivets fully in the holes of the housings.

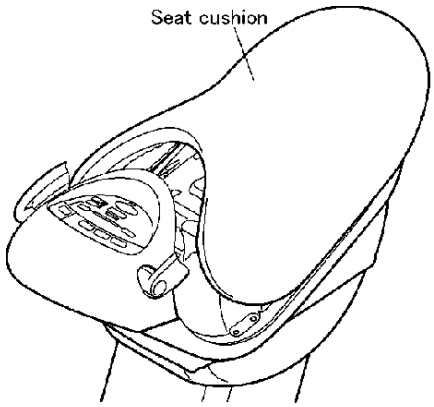


2. Remove the Seat cushion.

   a. Unscrew six screws as the Figure.

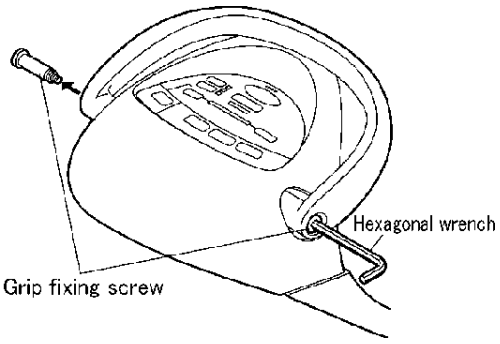


   b. Lift the Seat cushion and remove it.

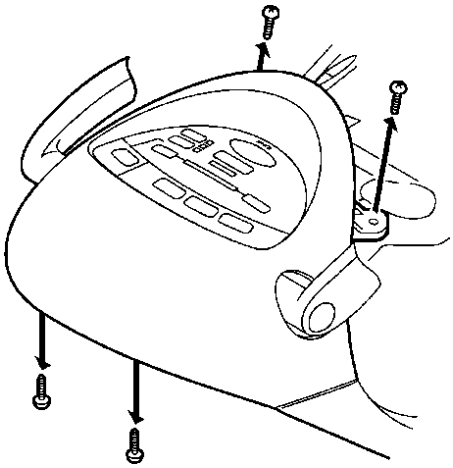


3. Remove the Reins and the Front panel.

   a. Remove the Grip fixing screws by the 5mm(1/4´´) Hexagonal wrench.

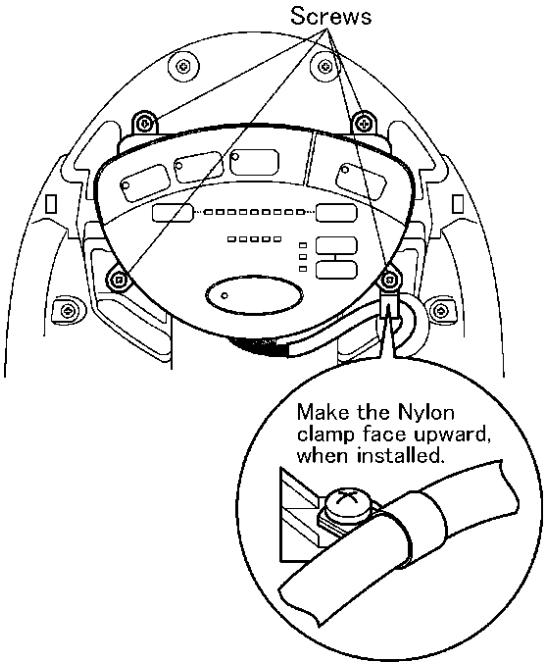


b. Unscrew four screws as the Figure.



4. Remove the Controller case.

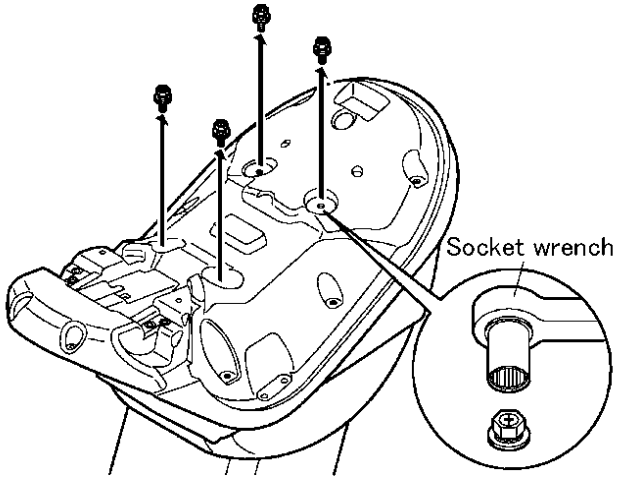
a. Unscrew four screws as the Figure.



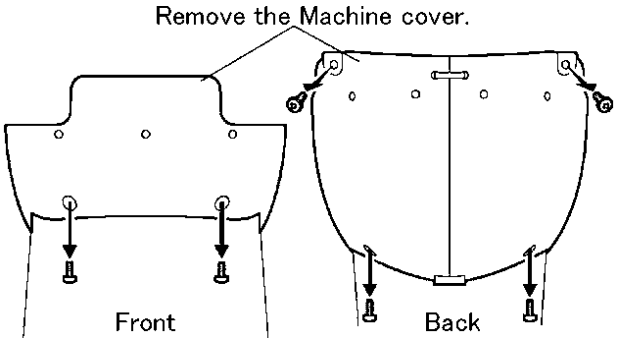
b. Be careful not to lose the Nylon clamp, which binds the Connecting cord for Controller.

5. Remove the Seat.

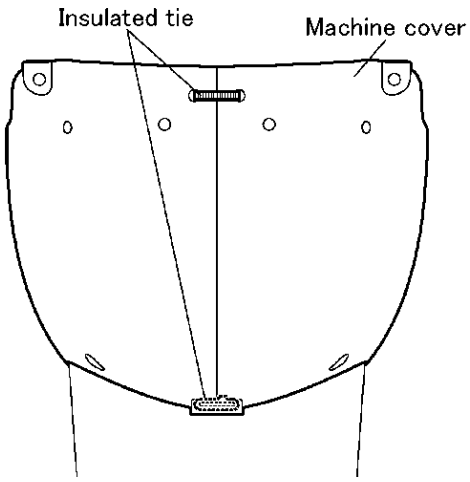
a. Remove four Hexagonal bolts by 13mm(1/2´´) socket wrench.



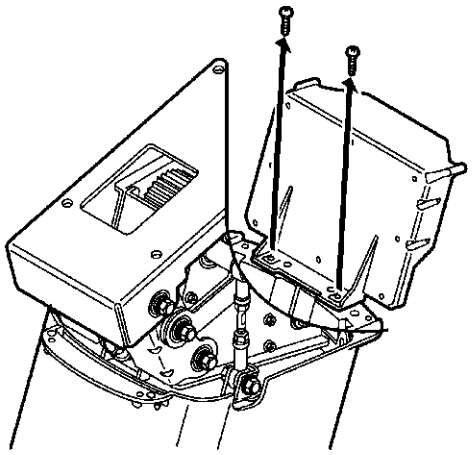
6. Remove the Machine cover.
   a. Unscrew six screws as the Figure.



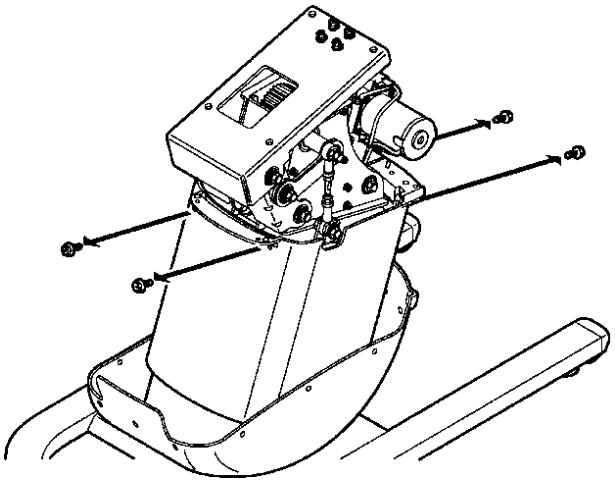
   b. Cut two Insulated ties.



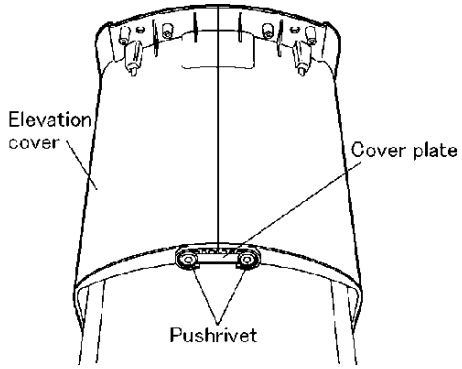
7. Remove the Main PCB case.
   a. Unscrew two screws as the Figure.



8. Remove the Elevation cover.
   a. Unscrew four screws as the Figure.

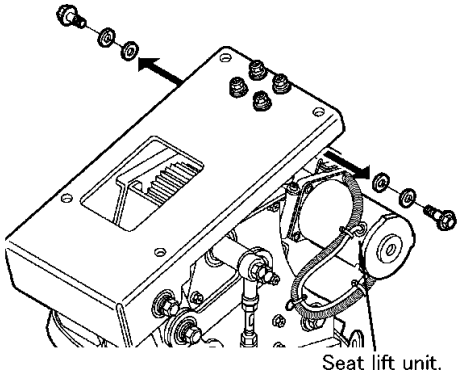


b. Remove the Cover plate and the Pushrivet.

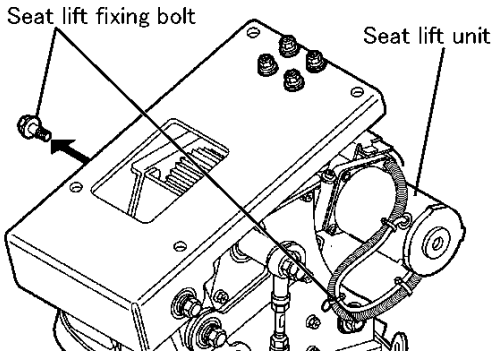


9. Remove the Seat lift.

a. Remove the upper four Seat lift fixing bolts by 10mm(3/8´´) socket wrench.



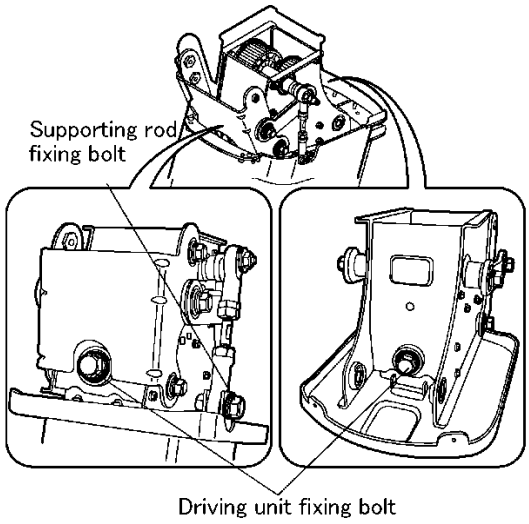
b. Remove two Seat lift fixing bolts by 13mm(1/2´´) socket wrench.



10. Remove the Driving unit.

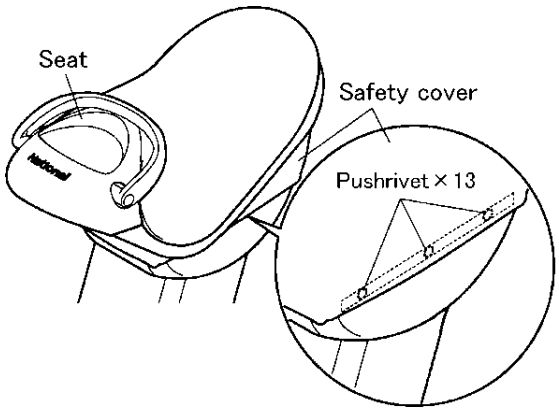
a. Remove the Supporting rod fixing bolt by 17mm(5/(8´´) socket wrench.

b. Remove two Driving unit fixing bolt by 19mm(3/4´´) socket wrench.

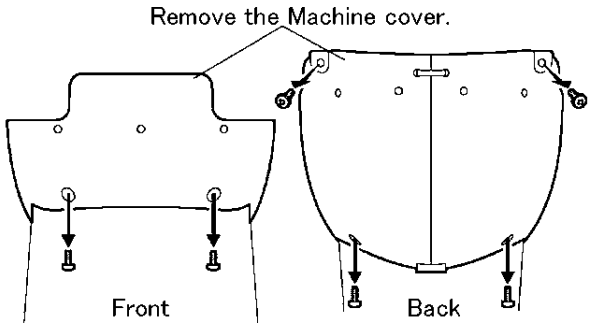


4 REPLACE THE DRIVING UNIT

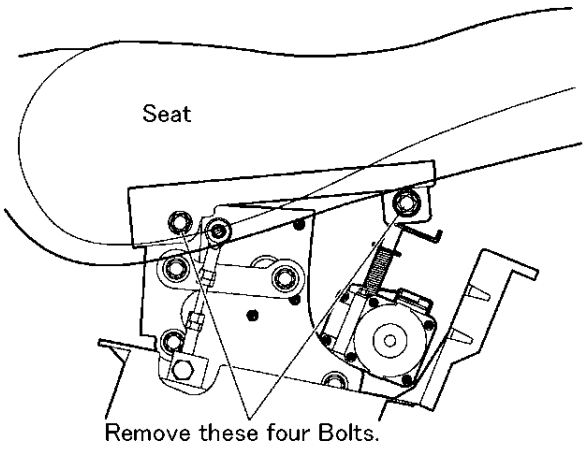
1. Remove the Safety cover on the Seat.
   a. Remove 13 Pushrivets.



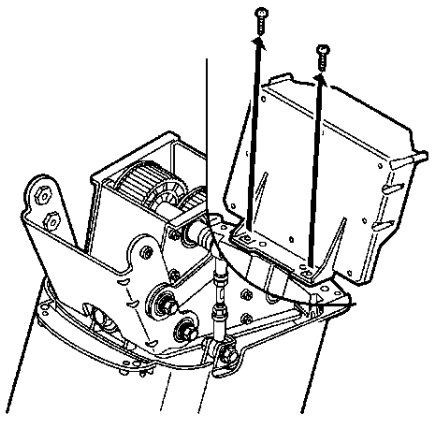
2. Pull down the Machine cover.
   a. Unscrew six screws as the Figure.



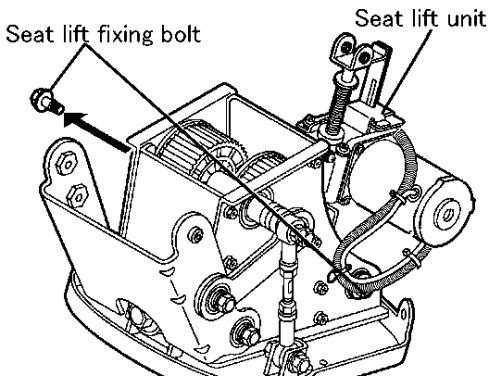
3. Remove the Seat on the Unit by 13mm(1/2´´) socket wrench.



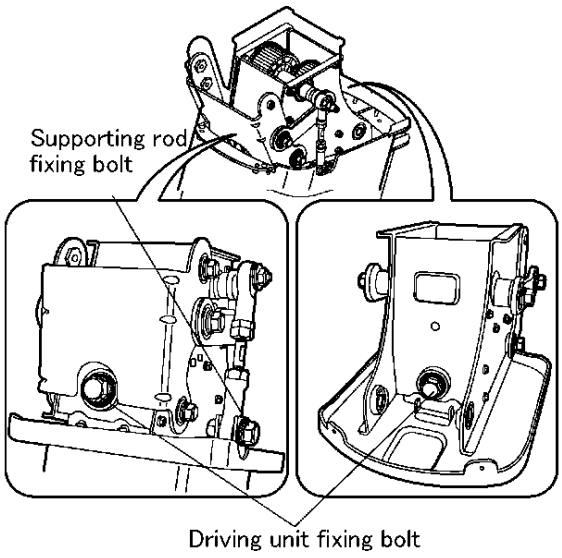
4. Remove the Main PCB case.
   a. Unscrew two screws as the Figure.



5. Remove the Seat lift.
   a. Remove two Seat lift fixing bolts by 13mm(1/2´´) socket wrench.

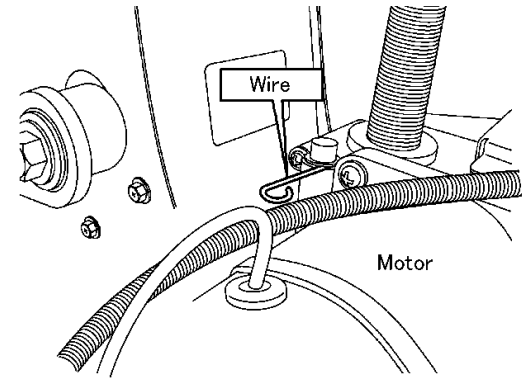


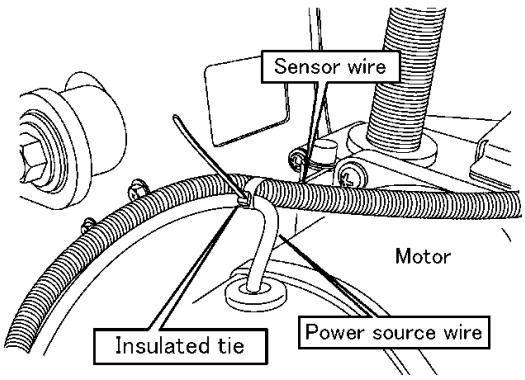
6. Remove the Driving unit.
   a. Remove one Supporting rod fixing bolt by 17mm(5/8´´) socket wrench.
   b. Remove two Driving unit fixing bolts by 19mm(3/4´´) socket wrench.



5 HOW TO ALLIGN WIRES

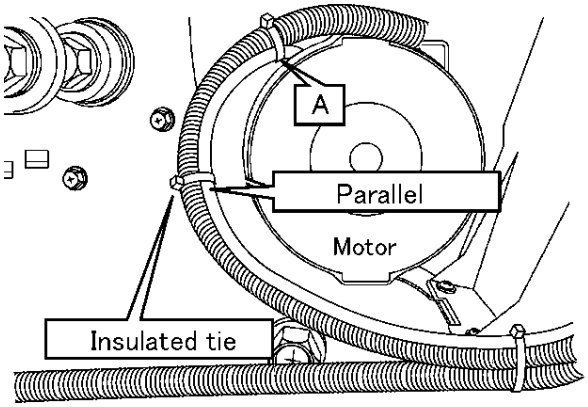
1. Bind the Sensor wire of the Seat lift unit and the Power source cord.
   a. Bind the Sensor wire and the Power source wire on the Wire with the Insulated tie small. (Make the Power source wire bottom and the Sensor wire top.)





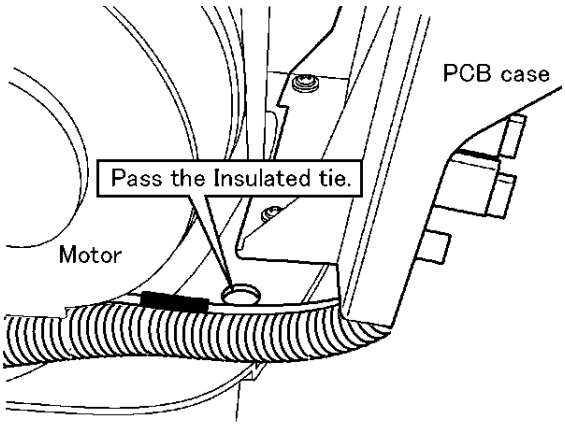
b. Align the Wires so that the Power source wire and the Sensor wire are parallel. Bind the two Wires on the partapprox. 50-60mm(2-2 3/8´´) from the Wire fixing part (A) with the Insulated tie small.

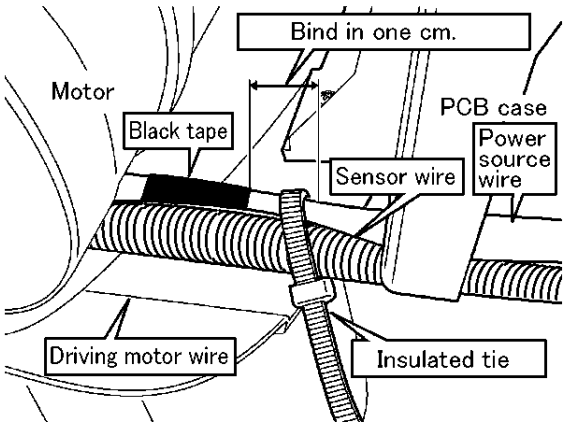
*** Bind the Wires along the Power source wire so that the Wires are not tangled.**



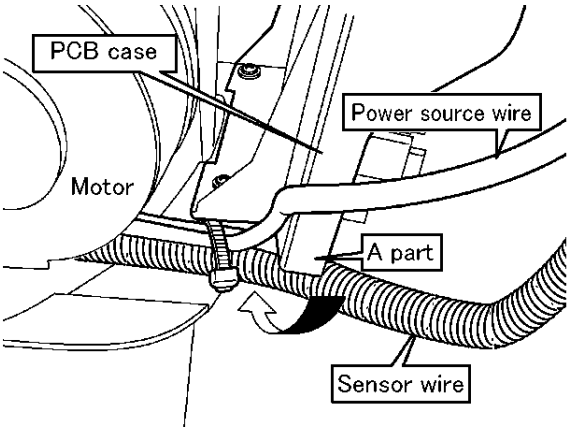
2. Align the Wires.(1)

a. Pass the Insulated tie middle through the Plastic cover, and fix the Power source wire, Sensor wire, and other Wires in order. Bind and fix them in 1 cm(3/8´´) from the marking (black tape) on the Power source wire.



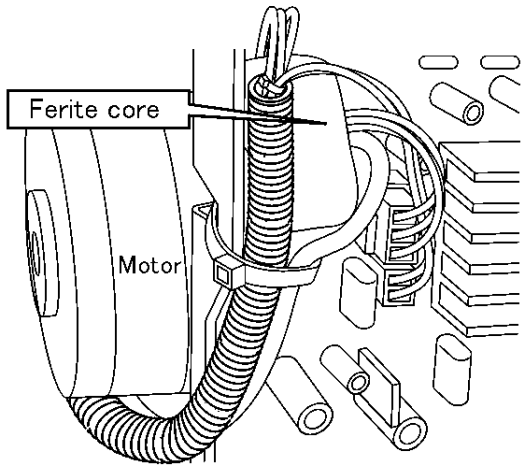


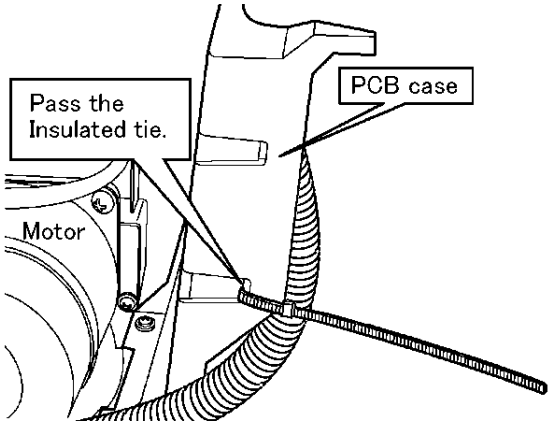
b. Hook the bound/fixed Power source wire and the Driving motor wire on the A part of the PCB case. Set the Sensor wire beneath the PCB case.



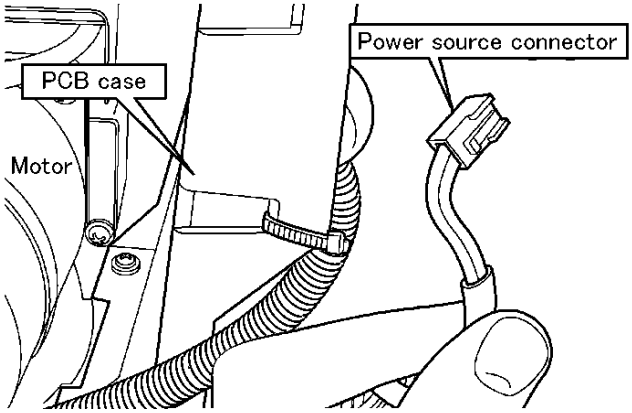
3. Align the Wires.(2)

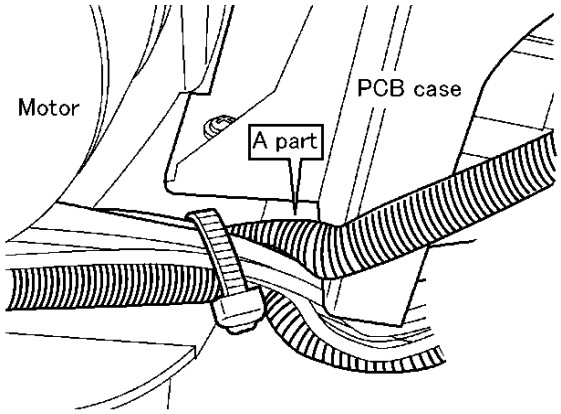
a. Pass the Insulated tie middle though the bottom hole on the side of the PCB case and bind/fix it under the Ferite core. (Align the Wires inside the B-PCB case.)





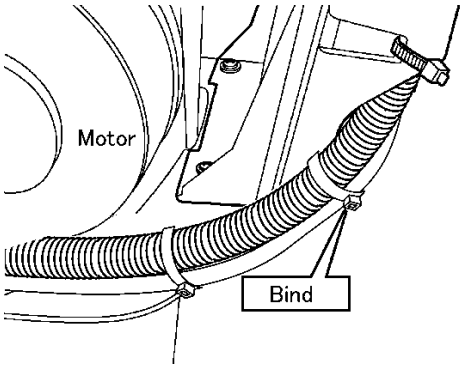
b. Pass the Power source wire connector from the A part to the bottom of the PCB case and insert the Connector to the Main PCB firmly.



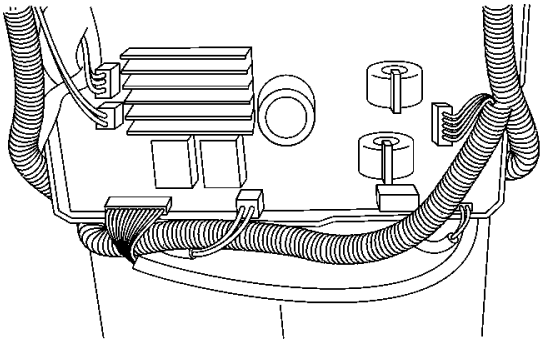


4. Align the Wires.(3)

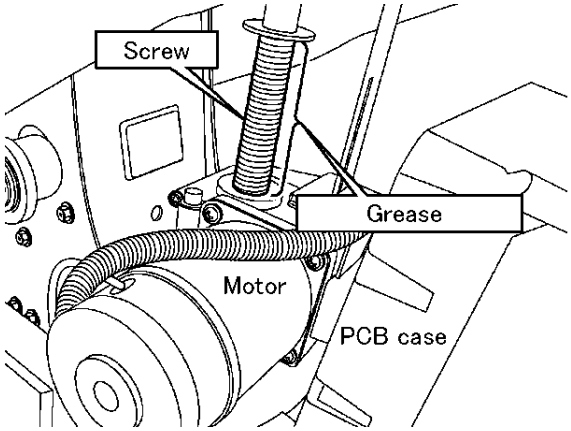
a. Bind the Power source wire and the Driving motor wire with the Insulated tie middle.



b. Insert the Sensor wire to the Main PCB and bind the pink wire and black thick wire with the Insulated tie small.

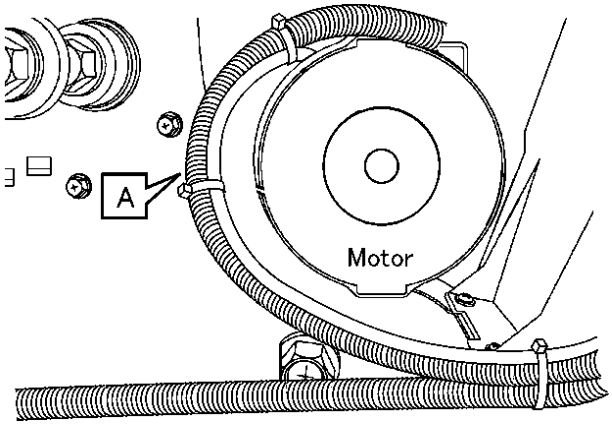


5. Grease on the Screw of the Seat unit.
   a. Grease the Screw from the bottom to the top.
      Be careful not to splash grease on other parts.
   b. Turn on the Power switch.
   c. Push the Controller case and operate the Seat unit.



6 CHECK THE OPERATION

1. Push the On/off button on the Controller and select the Programmed course.
   (Select other than the Exercise course.)
   Caution: Be careful not to hurt your fingers because the Seat angle becomes parallel right when the course is selected.
2. Point of checking
   - It operates with the R-shape of the Power source wire and the Sensor wire on A part unchanged.
   - Nothing hits the Motor or the Transformer.
   - When the Seat unit operates, nothing hooks or deforms the Sensor plates or deforms.



7 INSTALL THE SAFETY COVER AND MACHINE COVER

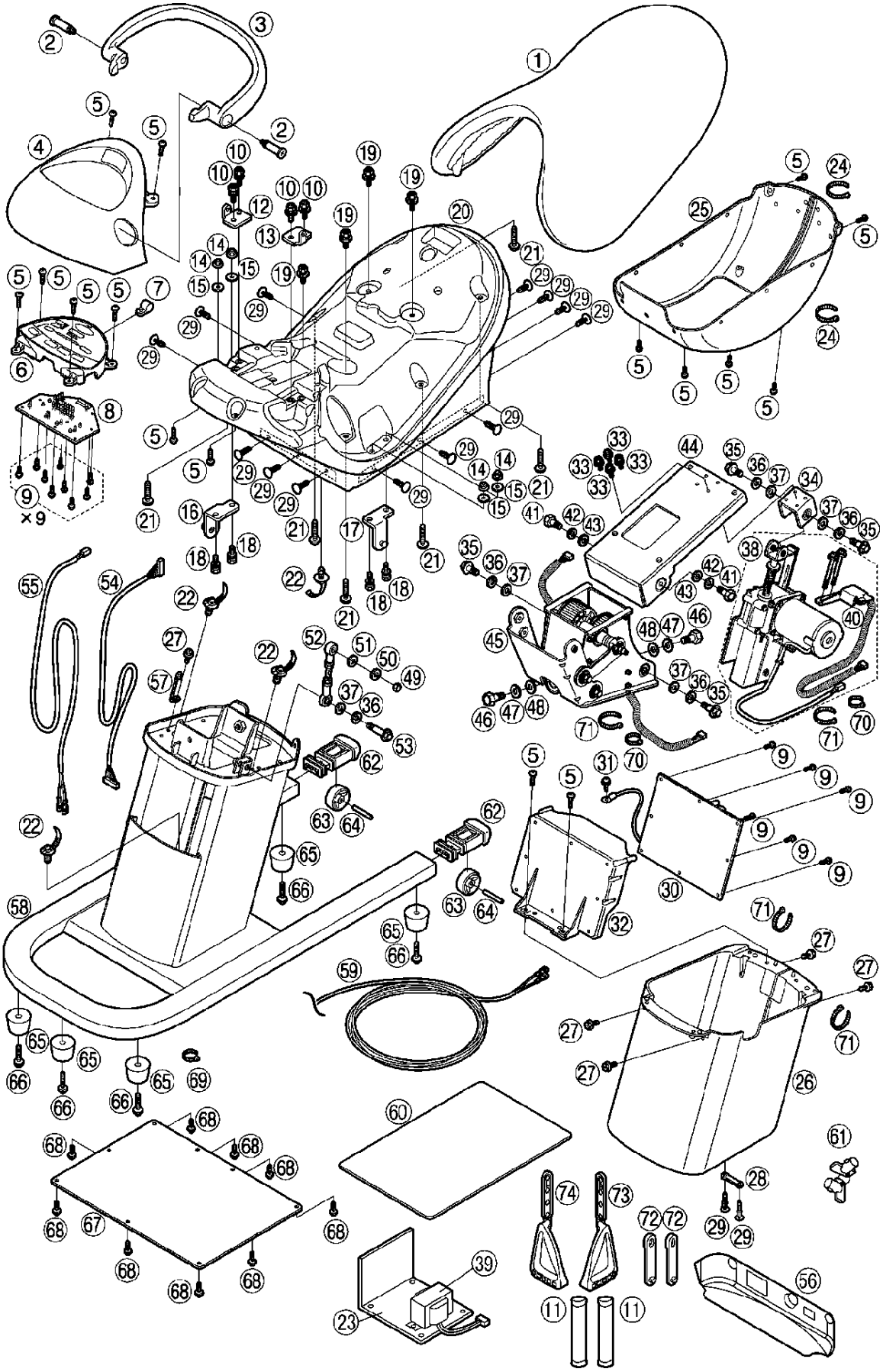
1. Install the Machine cover.
2. Install the Safety cover.

***When installing, proceed the reverse procedures of disassembly.**

8 FINAL OPERATION CHECKING

1. Select the Programmed course pushing on the On/off button of the Controller. (Select other than the Exercise course.)
2. Checking points
   - All the Rivets on the Safety cover are installed?
     (Front- three, Left/right- six, Back-four)
   - Any irregular noise in the operation?
     If so, check the alignment of Wires again.
   - When you stop the machine in leaning forward or backward, does the angle of the Seat go back to the parallel automatically?

9 EXPLODED VIEW



10 REPLACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Remarks	Per Unit
1	WEU6441A3698	SEAT CUSHION UL		1
2	WEU6441K6357	GRIP FIXING SCREW		2
3	WEU6441K3927	REIGN		1
4	WEU6441K3918	FRONT PANEL UL		1
5	WEU6441L9137	SCREW		16
6	WEU6441S3118	CONTROLLER CASE		1
7	WEU6441L0748	CLAMP		1
8	WEU6441L2128	CONTROLLER PCB		1
9	WEU6430L9778	SCREW		15
10	WEU6420L6687	BOLT		4
11	WEU6441H4368	FOOT STEP COVER		2
12	WEU6441L0227	REINS INSTALL PLATE RIGHT		1
13	WEU6441L0237	REINS INSTALL PLATE LEFT		1
14	WEU6441L6497	U NUT		4
15	WEU6441L6437	WASHER		4
16	WEU6441L0067	FOOTSTEP INSTALL PLATE RIGHT		1
17	WEU6441L0077	FOOTSTEP INSTALL PLATE LEFT		1
18	WEU6441L6697	BOLT		4
19	WEU6441L6547	BOLT		4
20	WEU6441K4028	SEAT		1
21	WEU6441L9667	SCREW		6
22	WEU6441K0567	INSULATED TIE		4
23	WEU6441L3518	INSTALL PLATE		1
24	WEU6441K8517	INSULATED TIE		2
25	WEU6441K3148	MACHINE COVER		1
26	WEU6441H3138	ELEVATION COVER		1
27	WEU6441L6067	SCREW		4
28	WEU6441K0207	COVER PLATE		1
29	WEU6441K6717	PUSHRIVET		15
30	WEU6441L2138	MAIN PCB		1
31	WEU6441L9077	SCREW		1
32	WEU6441L3117	MAIN PCB CASE		1
33	WEU6441L6347	BOLT		4
34	WEU6441L0287	LEAN LIFT PLATE		1
35	WEU6441L6767	BOLT		4
36	WEU6441L6317	WASHER		5
37	WEU6441L6407	WASHER		5
38	WEU6441L1008	SEAT LIFT		1
39	WEU6441L2248	TRANSFORMER		1
40	WEU6441L2267	SEAT LIFT SENSOR		1
41	WEU6441L6537	BOLT		2
42	WEU6441L6487	WASHER		2
43	WEU6442L6357	WASHER		18
44	WEU6441L0058	SEAT INSTALL PLATE		1
45	WEU6441L4048	DRIVING UNIT BLOCK		1
46	WEU6441L6777	BOLT		2
47	WEU6441L6687	WASHER		2
48	WEU6441L6618	WASHER		2
49	WEU6441L6557	U NUT		1
50	WEU6441L6447	WASHER		1
51	WEU6441L0847	RESIN WASHER		1
52	WEU6441L4347	SUPPORTING ROD		1
53	WEU6441L6028	BOLT		1
54	WEU6441L2078	CONNECTING CORD FOR CONTROLLER		1
55	WEU6441L2088	CONNECTING CORD FOR POWER SOURCE		1
56	WEU6441L2008	POWER SOURCE SWITCH BOX		1
57	WEU6441L0917	CORD FIXING FITTING		1
58	WEU6441H0098	LEG FRAME		1
59	WEU6441K2068	POWER CORD		1
60	WEU6441H7908	MAT		1
61	WEU6441K1747	EDN CAP		2
62	WEU6441W1737	CASTOR		2
63	WEU6441L0337	CASTOR SHAFT		2
64	WEU6441K0607	RUBBER FOOT		5
65	WEU6441L6248	SCREW		5
66	WEU6441K0537	BOTTOM COVER		1
67	WEU6420L6177	SCREW		9
68	WEU6430W8537	INSULATED TIE		2
69	WEU6430W8507	INSULATED TIE		2
70	WEU6430W8517	INSULATED TIE		4
71	WEU6441K0277	FOOT STEP CONNECTING FITTING		2

Ref. No.	Part No.	Part Name & Description	Remarks	Per Unit
72	WEU6441K4368	RIGHT FOOT STEP		1
73	WEU6441K4378	LEFT FOOT STEP		1
	WEU6441A8018	PACKAGING		1
	WEU6441L8798	OPERATION MANUAL		1